UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

DATE: 12/15/15

SUBJECT: Clean Air Act Inspection of Marathon Petroleum Brecksville Terminal, Brecksville, Ohio

FROM: Gina Harrison, Environmental Scientist GH
AECAB (MN/OH)

THRU: Brian Dickens, Chief BD
AECAB (MN/OH)

TO: File

Date of Inspection July 2, 2014

Attendees Gina Harrison, Environmental Scientist, EPA
Greg Gehrig, Environmental Engineer, EPA
Larry Maline, Compliance Specialist, Cleveland Division of Air Quality
Lauren Sindelar, Compliance Specialist, Cleveland Division of Air Quality
Matt White, Terminal Operator, Marathon Brecksville Terminal
Jeff Schulz, Lead Operator, Marathon Brecksville Terminal
Brad Dolce, Terminal Manager, Marathon Brecksville Terminal
Bob Jarabeck, Regional EHS Manager, Marathon Brecksville Terminal

Summary of Inspection

On July 2, 2014, EPA inspectors visited Marathon Petroleum Company, Brecksville Terminal, located at 10439 Brecksville Road, Brecksville, Ohio (Marathon or facility) and inspected the facility for compliance with the Clean Air Act. Marathon is a liquid petroleum product storage and dispensing facility with eleven (11) storage tanks and one loading rack. The facility operates 24 hours per day, 7 days per week. During the inspection the facility was storing product at 8 tanks out of the 11 available tanks. While on site, inspectors climbed all 8 operating tanks and surveyed the tanks using a FLIR camera. Inspectors observed visible gas flow at a two tank pressure relief valves, an aluminum roof seam at the top of a tank, and two roof vents. Inspectors also measured concentrations of 40 ppm and 400 ppm at a pressure relief valve on tank T-005 and a pressure relief valve on tank T003, respectively, using the PhoCheck photoionization detector (PID). At the close-out meeting, Region 5 provided facility representatives with

a summary of concerns including gas flow and high VOC concentrations measured by the FLIR and PID and suggested an information request may be forthcoming.

Photoionization Detector (PID) Calibration and Ambient Air Background Reading

On June 30th, 2014, Greg Gehrig calibrated the PID in accordance with the manufacturer's printed instruction manual. On July 2, 2014 at 8:19 AM, EPA inspectors recorded a zero ppm background reading with the photoionization detector, the PhoCheck TIGER, at the corner of Brecksville Rd and Snowville Rd.

Opening Conference

EPA inspectors Gina Harrison and Greg Gehrig along with representatives Lauren Sindelar and Larry Maline from the Cleveland Division of Air Quality entered the Facility at 8:23 AM, presented credentials and met on-site immediately with Bob Jarabeck, Regional EHS Manager, and Brad Dolce, Terminal Manager. EPA explained the purpose of the visit and explained the FLIR camera and PID. Bob took the inspectors to a conference room for a process overview and offered a list of tanks and associated products along with a facility tour to explain operations.

Facility Overview and Tour

At its Brecksville facility, Marathon operates the following tanks:

Tank Number (Marathon ID and Ohio EPA ID)	Product Stored	Roof Type	Capacity (barrels)	Current Load (barrels)
T001 (55-3)	Gasoline	Domed Floating	56,000	11,272
T002 (35-1)	Gasoline	Domed Floating	35,800	848
T003 (35-9)	Distillate	Cone/Flat/Dome	35,800	11,455
T004 (55-12)	Distillate	Covered/Internal Floating	56,000	13,676
T005 (55-7)	Distillate	Cone/Flat/Dome	35,800	Active loading
T006 (15-11)	Transmix	Covered/Internal Floating	15,100	2,826
T007 (T-5)	Transmix	Covered/Internal Floating	749	84
T010 (80-4)	Gasoline	Covered/Internal Floating	Out of service	Out of service
T011 (80-6)	Gasoline	Covered/Internal Floating	Out of service	Out of service
T012 (35-2)	Ethanol	Covered/Internal Floating	48,933	6,461
T018 (AA-10-2)	Diesel Additive	Cone/Flat/Dome	Out of service	Out of service

Inspectors surveyed all tanks except the diesel additive tank and the 80-4, 80-6, and AA-10-2 tanks, which were out of service. Bob explained the transmix tanks include a mix of gasoline, premium, distillate, kerosene, and diesel. The product level at T005 was unavailable due to active loading.

Vapor pressure:
Marathon samples each tank for vapor pressure with varying frequency depending on the season. At minimum, Marathon samples product on a monthly basis from three of five spouts located at the top, middle, and bottom of each tank as part of the monthly inspection protocol, and enters each result into a database called the Field Test Management System (FTMS). The spouts at the top, middle, and bottom of each tank are slowly opened to release product into a glass jar in order to minimize bubbles. During the winter, the ideal vapor pressure is 13-14 pounds per square inch gauge (psig), and during the summer the maximum allowable vapor pressure is 9 psig. The seasonal vapor pressure conversion occurs beginning annually in March at which point the product in each tank is measured constantly after receipt of each load and in accordance with the inspection protocol to ensure consistent vapor pressure readings throughout the tank. If vapor pressure is measured above the maximum psig, the tank is shut down and does not go live to the rack until vapor pressures are measured under required standards. The protocol doesn't specify exactly how often they should sample during conversion season, which is typically March through May or however long it takes for vapor pressure samples to measure consistently below 9 psig. Depending on the product loaded into the tank, Bob and Brad told inspectors it may take three separate receipts to get the top converted.

The majority of Marathon's product business comes from the pipeline but occasionally they receive loads of distillate by truck. No trucks were loaded at the time of the inspection. Inspectors used the FLIR camera to survey each of the tanks and recorded the following videos, with observations summarized:

Emission Unit (Marathon ID and Ohio EPA ID)	Video File Number from FLIR	Observations
T003 (35-9)	640	Observed flow at the pressure relief valve (PRV).
T003 (35-9)	641	Observed flow at the PRV. PID measured 400 ppm.
T007 (T-5)	642	Observed flow at the roof vent and thief hatch. PID measured 15 ppm at roof vent.
T007 (T-5)	643	Observed flow at the manway. PID measured 3 ppm at seam.
Loading Rack Hose	644	Observed flow at the loading rack hose. PID measured 2 ppm at valve.

Closing Conference

EPA reviewed rolling 12-month emissions and throughput summaries for all tanks and requested copies of tank inventory records for each tank inspected, and reviewed the

FTMS detail for Tank 80-4, the API 653 report for tank 80-4, the form 600 monthly tank inspection checklist template, the monitoring protocol for RVP sampling, and the tank throughput reports for all operating tanks except T005.

Marathon stated that none of the information discussed nor materials obtained need to be treated as confidential business information. Inspectors indicated there may be a followup email requesting additional information or a CAA Section 114 Information Request may be sent to the facility.

Attachments:

Attachment A: FLIR Videos 640-644
Attachment B: TCI API 653 Corrosion Analysis for Tank 80-4, dated 4/10/2013.
Attachment C: Form 600 Monthly Tank Inspection Checklist template
Attachment D: Field Test Management System (FTMS) detail/history for Tank 80-4, inspection date 6/19/14
Attachment E: Emission calculation table for all tanks from 06/01/2013 to 05/31/2014
Monthly periodic monitoring protocol for RVP sampling (Grabner Portable Analyzer), dated 7/31/2008
Attachment F: Tank Throughput Reports for 7/2/14 for Tanks T001 (55-3), T002 (35-1), T003 (35-9), T004 (55-12), T006 (15-11), T007 (T-5), and T012 (35-2).